

A Holistic Approach

Back to School Road Map

May 20, 2020 V.1.0



Navigating Unprecedented Change



We seek to assist schools and their communities in managing the current health crisis as well as future challenges. Our capabilities outlined in this document include:

COVID-19 Capacity Standards

Education Adaptation Strategies

Health Promotion Measures

For more information,
please contact:

Brooke Trivas, K-12 Practice Leader

brooke.trivas@perkinswill.com



How this Road Map Will Help You

This document—excerpted from our comprehensive road map—is intended to highlight best practices for returning students and faculty to K-12 schools after COVID-19-related closures and disruption. It presents strategies, innovations, and suggestions applicable to the period before reopening as well as during the upcoming academic year. This material should not replace federal, state, or local guidance, but instead help organize, understand, and implement the necessary steps for repopulation.

Due to the biological and social challenges caused by this pandemic, the guidance provided aims to reduce further spread of COVID-19, support learning and teaching, and ensure the social and emotional well-being of all users. Currently, there are existing resources about singular components of the repopulation effort in schools, but no holistic guide to support students, teachers, and staff. Further, there is no aggregation of building-related innovations and interdisciplinary guidance. We hope to change that.

This proactive, preventive approach to school design, operation and maintenance can save lives, improve quality of life, and support learning by reducing future transmission and disruptive evacuations.



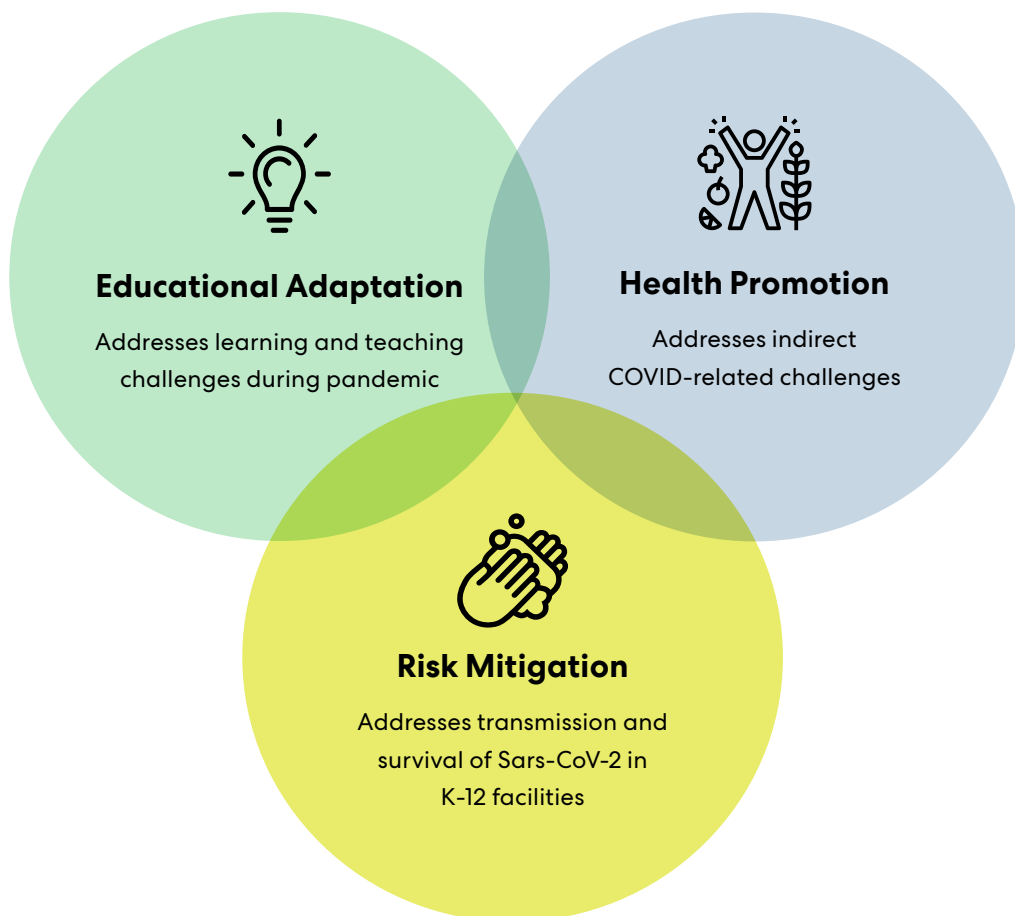
Always Follow Federal, State, and Local Guidance




The guidance provided in this document is based on the available information as of publication and does not replace federal, state or local public health recommendations but aggregates best practices and innovative solutions at the intersection of buildings and school health. We encourage schools to reach out and seek expert advice on their unique circumstances.

Note: Please find a list of resources at the end of this document.

A Holistic Framework

We believe that repopulating K-12 schools requires a holistic, solutions-oriented approach that promotes health and safety without compromising students' learning potential.



	 Educational Adaptation	 Risk Mitigation	 Health Promotion
Why is this important?	<p>The primary function of K-12 schools is to promote effective learning and teaching. Yet, the COVID-19 crisis has disrupted learning environments globally.</p>	<p>Reducing droplet, aerosol, and contact transmission in schools will be essential to keeping communities safe and functioning.</p>	<p>COVID-19 has resulted in economic challenges, widening educational gaps, and long-term building closures that worsen the social and physical learning environment.</p>
What can we do about it?	<p>Through scheduling changes, use of virtual learning environments, modified classroom designs and more, we can support educational continuity during the academic year.</p>	<p>Through increased cleaning, social distancing, educational signage, and air quality improvements, schools can develop a multifaceted approach to reducing disease transmission and survival.</p>	<p>Through proactive measures, like flushing water systems, providing students with additional resources, and supporting teachers, schools can collectively address secondary challenges caused by COVID-19.</p>



How is COVID-19 transmitted?

COVID-19 is a respiratory virus transmitted from person to person by:

Large air droplets:

released during talking, sneezing, or coughing

Suspended droplets or

aerosols: particles <5 microns in diameter can be produced by a powerful sneeze or cough, which can travel as far as 20 feet.

Contact via fomites:

Touching contaminated surfaces and then touching mucous membranes of eyes, nose, and/or mouth can spread the virus between people.

Note: Asymptomatic carriers can transmit the virus through these pathways, even if they do not appear to be visibly sick. Also, 50% of SARS-CoV-2 carriers, shed the virus in fecal matter.

Safety, health, and learning are the only priorities.

No single strategy can address this crisis. Therefore, we provide guidance on social and behavioral changes, scheduling, use of virtual environments, signage, reduced surface contamination through both cleaning and non-cleaning strategies, social distancing and capacity analysis, and air quality.

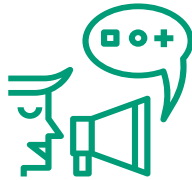
A Safe Return to School



— 01

Establish Policies

Policies should promote learning, health and safety.



— 02

Communicate

Clearly communicate with the school community and get feedback.



— 03

Procure and Implement

Create a plan for returning to school.

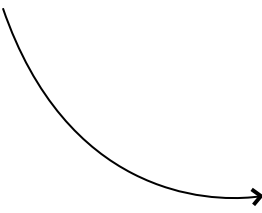


— 04

Return to School

Capacity Guidelines

When society moves past the current health crisis, schools will not return to the status quo. Our capacity analysis process equips you with sound strategies for returning to school.



— 01

Determine Capacity

The number of students and staff with physical distancing guidelines approved by your community.

— 02

Evaluate Current Schedule

The number of students scheduled to be in class during each period.

— 03

Assess Shortfall

The number of students who do not fit within the space after accounting for physical distancing.

— 04

Set Strategies

Options for making up the shortfall, either by new delivery models or by creating additional instruction space.

— 05

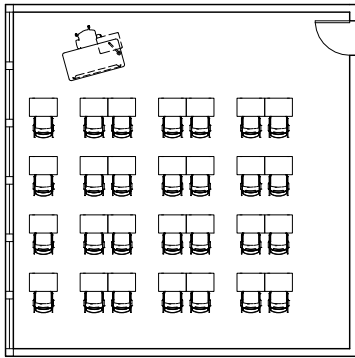
Craft Framework

A multifaceted framework guided by Educational Adaptation, Risk Mitigation, and Health Promotion.

Sample Diagrams

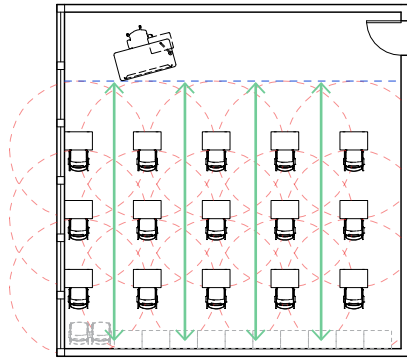
How much is classroom capacity reduced?

Social distancing per CDC guidelines, refer to the CDC for updates.
Diagrams are based on a typical high school / middle school classroom



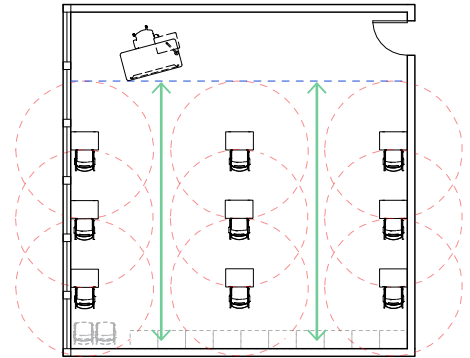
PRE-PANDEMIC

900 SF (30'x30')
No social distancing
28 students



MINIMUM REQUIREMENTS

900 SF (30'x30')
6' distancing when seated
Circulation passes through 6' radius
15 Students (-46%)

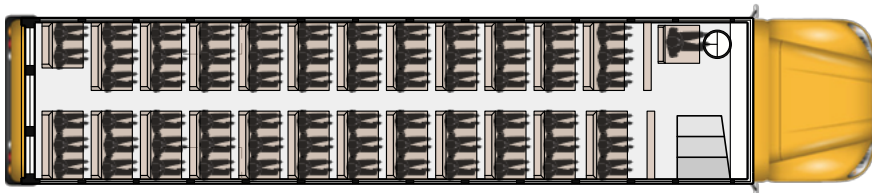


IDEAL SCENARIO

900 SF (30'x30')
6' distancing at all times
Circulation does not pass within 6' radius
9 students (-68%)

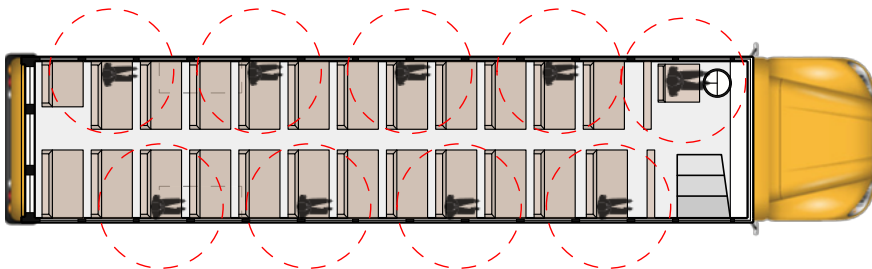
School bus seating with social distancing

Social distancing per CDC guidelines, refer to the CDC for updates.
All diagrams are based on a standard 71 passenger school bus



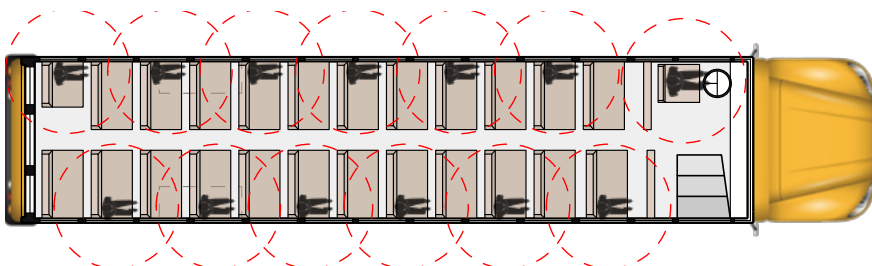
ORIGINAL SEATING

Maximum seating: 3 students per row
Students per bus: 71



OPTION 1

Maintains social distancing,
alternating every other row
Students per bus: 8



OPTION 2

Does not maintain social distancing,
alternating every row
Students per bus: 12

**School design and protocols
cannot address every hazard
between home and school.
There will be risks.**



Home



Transit to school



Working parents

Social engagements

Multi-generational living

Public transportation

School bus density / contamination



Entering and exiting school

Entering the building
High-touch surfaces
Public spaces



Learning spaces

Designed and managed for
physical distance



We urge you to regularly consult with the following resources.

Centers for Disease Control and Prevention (CDC) School Specific Guidance

[https://www.cdc.gov/coronavirus/2019-ncov/
community/schools-childcare/index.html](https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html)

Federal, State, & Local Guidance

<https://www.usa.gov/coronavirus> or [https://www.
coronavirus.gov/](https://www.coronavirus.gov/)

Healthy Environments: Understanding Antimicrobial Ingredients in Building Materials

[https://healthy-materials-lab.s3.amazonaws.com/
resources/Antimicrobial_WhitePaper_PerkinsWill.pdf](https://healthy-materials-lab.s3.amazonaws.com/resources/Antimicrobial_WhitePaper_PerkinsWill.pdf)

List N: Disinfectants for Use Against SARS-CoV-2

[https://www.epa.gov/pesticide-registration/
list-n-disinfectants-use-against-sars-cov-2](https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2)

Occupational Safety and Health Administration (OSHA)

<https://www.osha.gov/SLTC/covid-19/>

School Nutrition Safety

[https://www.cdc.gov/coronavirus/2019-ncov/
community/organizations/school-nutrition-
professionals.html](https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/school-nutrition-professionals.html)

U.S. EPA's Resources for Healthy Indoor Air Quality in Schools

<https://www.epa.gov/iaq-schools>

World Health Organization

[https://www.who.int/docs/default-source/
coronaviruse/key-messages-and-actions-for-covid-
19-prevention-and-control-in-schools-march-2020.
pdf?sfvrsn=baf81d52_4](https://www.who.int/docs/default-source/coronaviruse/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools-march-2020.pdf?sfvrsn=baf81d52_4)





We are here to assist you in your return to school.

For more information, please contact:

Brooke Trivas, K-12 Practice Leader

brooke.trivas@perkinswill.com